Affective valence and activation of the 196 Spanish fragments from the Dasí, Soler y Ruiz (2004) database

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There are four groups of factors that should be considered when studying human memory: subject, encoding, retrieval, and material variables [3]. The last factor is related to several stimulus features that can affect the performance of subjects in a memory task. The correct choice of the experimental material is important because it can affect the validity of the research. One of today's most extensively used implicit perceptual tasks is the word-fragment completion test [8]. The availability of standardized information about fragments can help in the selection of appropriate stimuli. In the Spanish language there is a published normative database of 196 word fragments including some indices like difficulty, priming, familiarity, frequency, etc. [2].

This work aims to extend the available information in this base adding two new indices, "affective valence" and "activation", that can be relevant in affective priming research. The recent dimensional theories of emotion propose that human emotions are based on some basic dimensions. Two of those relevant dimensions are affective valence (pleasantness) and activation (excitation) [4,6]. It can be interesting to have information about these factors to promote the research of affective priming in implicit memory tasks like fragment completion. The control of the affective valence and activation of the stimuli is necessary if a researcher wants to guarantee the validity of the design.

We have obtained both indices for the words of the Dasí, Soler & Ruiz [2] database using a visual scale called SAM [4] ranging from 1 (no affective valence or activation) to 9 (maximum valence or activation). The words were scored in activation and valence by different groups of Psychology students. Each word was assessed by an average of 148 participants. A regression analysis was performed to study the best fitting relation between both dimensions. The quadratic model (boomerang figure) was the best explaining the relation between affective valence and activation, corrected R^2=.26, $F(2, 193) = 34.30$, $SMe = 0.72$, $p < .001$. Regression equation was $x_1' = 10.47 - 2.08x + 0.19x^2$.

We formed two stimuli groups (pleasant-unpleasant) using the median (5.03). With unpleasant stimuli we confirmed the negative correlation between valence and activation (R=-.71; p<.001) obtained by previous researchers [5]; that is, the stimuli most unpleasant produces more activation. However, with pleasant stimuli we obtained a positive correlation (R=.31; p<.01) that differs of other previous results [5,7].
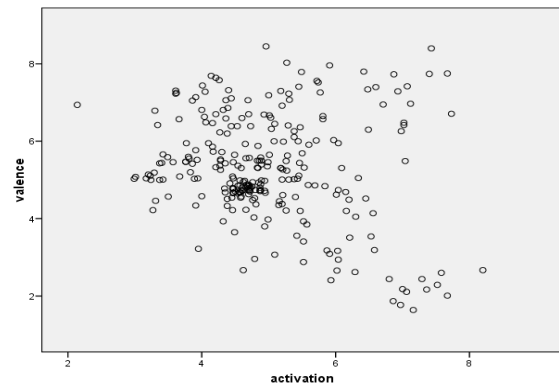
Figure 1. *Distribution of the valence and activation evaluations of the 196 fragments.*

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Proceedings of Measuring Behavior 2008 (Maastricht, The Netherlands, August 26-29, 2008)
Eds. A.J. Spink, M.R. Ballintijn, N.D. Bogers, F. Grieco, L.W.S. Loijens, L.P.J.J. Noldus, G. Smit, and P.H. Zimmerman

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